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Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries

Technical paper

Summary

This technical paper draws from the information contained in submissions by Parties and admitted observer organizations in respect of decision 2/CP.17, paragraphs 79–86, the presentations and discussions at the workshops on various approaches that were held in conjunction with the first part of the fifteenth session of the AWG-LCA, and the discussions at the meetings of the informal group on various approaches during this part of the session.

Parties may wish to use the information contained in this technical paper to assist in their consideration of one or more models for the operation of a framework for various approaches, with a view to recommending a decision to the Conference of the Parties at its eighteenth session, and also to assist in their consideration of a pilot phase for such a framework.

Parties may also wish to use the information contained in this technical paper to assist in their elaboration of modalities and procedures of the new market-based mechanism, as defined in decision 2/CP.17, paragraph 83, with a view to recommending a decision to the Conference of the Parties at its eighteenth session, and also to assist in their consideration of a pilot phase for this mechanism.

Contents

I. Introduction

A. Mandate

1. The Conference of the Parties (COP), by its decision 2/CP.17, paragraphs 79–86, addressed the issue of various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries, and requested the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) to conduct two work programmes:

(a) To consider a framework for various approaches (FVA);

(b) To elaborate modalities and procedures for the new market-based mechanism (NMM) as defined in paragraph 83 of this decision.

2. For each work programme, the COP invited Parties and admitted observer organizations to submit their views on the matters referred to in decision 2/CP.17, paragraphs 79–80 and 83–84, including their experiences, positive and negative, with existing approaches and mechanisms as well as lessons learned, and requested the AWG-LCA to conduct one or more workshops with Parties, experts, and other stakeholders, including an in-session workshop at the first part of its fifteenth session, to consider these submissions and to discuss the matters referred to in these paragraphs of this decision.

3. At the first part of its fifteenth session in May 2012, the AWG-LCA considered the matters referred to in decision 2/CP.17, paragraphs 79–86, including through in-session workshops on the FVA and the NMM. Reports of these workshops are contained in documents FCCC/AWGLCA/2012/INF.4 and FCCC/AWGLCA/2012/INF.5. At the conclusion of this part of the session, the AWG-LCA requested the secretariat to prepare a technical paper, which draws from the information contained in submissions, the presentations and discussions at the workshops on various approaches that were held in conjunction with this part of the session, and the discussions at the meetings of the informal group on various approaches during this part of the session.

B. Scope and structure

4. Section II of this technical paper outlines the context for the FVA and NMM. Section III examines issues and options regarding the FVA. Section IV examines issues and options regarding the NMM.

C. Possible action by the AWG-LCA

5. Parties may wish to use the information contained in this technical paper to assist in their consideration of one or more models for the operation of the FVA, with a view to recommending a decision to the COP at its eighteenth session, and also to assist in their consideration of a pilot phase for the FVA.

6. Parties may wish to use the information contained in this technical paper to assist in their elaboration of modalities and procedures of the NMM, with a view to recommending a decision to the COP at its eighteenth session, and also to assist in their consideration of a pilot phase for the NMM.

II. Context

A. Background

7. The term "various approaches" arises from paragraph 1(b)(v) of decision 1/CP.13 (the Bali Action Plan), in which the COP decided to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision at its fifteenth session, by addressing, inter alia, enhanced national/international action on mitigation of climate change, including, inter alia, consideration of "various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries".

8. The term "various approaches" is broad and all-encompassing. Any approach that has the purpose of enhancing the cost-effectiveness of, or promoting, mitigation actions, would appear to be included within the scope of this term. These approaches can be domestic or international. These approaches can also be market-based in nature or non-market-based in nature.[1] Most of the inputs received to date on the subject of various approaches have addressed international market-based approaches.

B. The two areas of work

9. As mentioned in paragraph 1 above, the COP has established two work programmes under various approaches, one on the FVA and the other on the NMM. While these two areas of work share several of the same requirements, they are potentially distinct in a number of ways.

10. The FVA appears to contemplate a system for enabling the recognition under the UNFCCC of units from mechanisms that are operated and administered outside the UNFCCC. The scope of the FVA extends to market-based mechanisms as well as non-market-based mechanisms.

11. In contrast, and as defined by Parties in decision 2/CP.17, paragraph 83, the NMM will operate "under the guidance and authority of the Conference of the Parties". As such the NMM represents a UNFCCC-run market mechanism much like the mechanisms under the Kyoto Protocol, with agreed modalities and procedures that would apply to all participating UNFCCC Parties, and with units representing mitigation outcomes being certified and issued by the UNFCCC.

12. To some Parties and observers, the FVA and NMM are quite distinct, with the FVA aligned with a more flexible, country-driven process and the NMM aligned with centralized and consistent UNFCCC-driven approaches, in respect of achieving mitigation commitments and/or targets, trading, and accounting. To others, these distinctions are less clear. As noted below, a model of the FVA that contemplates the approval by the UNFCCC of mechanisms is nearly identical to a model of an NMM that consists largely of

[1] The distinction between market-based approaches and non-market-based approaches is set out in document FCCC/AWGLCA/2011/4. The more widely accepted definition of a market-based approach is that it employs or in some way recognizes an infrastructure for trading emissions on the basis of market principles such as supply and demand (e.g. emissions trading systems, offset programmes). The less widely accepted definition of a market-based approach is that it provides economic incentives for certain forms of behaviour (e.g. not only emissions trading systems and offset programmes, but also such measures as taxation and feed-in tariffs).

guidelines and requirements for Party-led and/or -managed crediting or trading mechanisms.

13. One intent shared by the FVA and NMM is to create and/or recognize units that can be used by Parties to meet their mitigation commitments and/or targets. Many issues that arise in accounting for units created and recognized under the FVA and NMM (e.g. unit tracking and avoiding double counting) are intertwined with the scope and terms of mitigation commitments and/or targets (e.g. emissions covered and treatment of internationally-traded units) and the process by which their achievement will be assessed, analysed, and/or reviewed. Both the mitigation commitments and/or targets and the processes for considering them at the international level remain to be clearly defined. These clarifications could have important implications for the development of the FVA and NMM. Furthermore, the scope, terms, and overall ambition of Parties' mitigation commitments and/or targets will affect the demand for, and by extension the viability of, various approaches.

C. Relationship with the current mechanisms under the Kyoto Protocol

14. The precise relationship of the FVA and NMM with the three mechanisms established under the Kyoto Protocol – the clean development mechanism (CDM), joint implementation (JI), and international emissions trading (IET) – has yet to be fully clarified. To date, the COP has noted that it would undertake to maintain and build upon these three mechanisms,[2] and has agreed that, in developing and implementing new market-based mechanisms, it would maintain and build upon existing mechanisms, including those established under the Kyoto Protocol.[3]

15. There are three potential dimensions to this relationship:

(a) **Supply/demand balance.** The supply of surplus units from the three flexibility mechanisms under the Kyoto Protocol is expected to be more than sufficient to satisfy the demand for such units through 2020. As a result there are concerns that at the current level of mitigation ambition, there will be insufficient demand for units to justify the development of the FVA and NMM prior to 2020. Conversely, there are concerns among Parties involved in the existing Kyoto Protocol mechanisms that the FVA and NMM could further undermine already depressed markets for units generated under these mechanisms.

(b) **Possible overlap in covered activities.** Either the FVA or NMM could recognize activities that are covered by one of the flexibility mechanisms. For example, the NMM could cover a sector of a host country's economy in which one or more CDM projects are registered. Parties will need to consider whether this overlap is problematic and, if so, to identify ways of addressing it. One option for doing so, as raised in the submissions, is through the implementation of comprehensive and linked systems (i.e. registries) for tracking units issued in respect of mitigation outcomes. In this context, Parties may also wish to consider criteria for issuing units in respect of mitigation outcomes that fall within the scope of multiple mechanisms.

(c) **Extension of existing infrastructure to the FVA and NMM.** The existing infrastructure set up to administer the existing Kyoto Protocol mechanisms could be broadened to assist in the operation of the FVA and NMM. For example, the international transaction log (ITL) could be extended to function as a tracking tool for international transactions and units under the FVA and/or NMM. Similarly, regulatory bodies such as

[2] Decision 2/CP.17, section II.E, preamble.
[3] Decision 1/CP.16, paragraph 83.

the CDM Executive Board and JI Supervisory Committee, as well as the UNFCCC secretariat, could be adapted to assist in the operation of the FVA and/or NMM. The use of existing institutions and infrastructure in this manner could enable savings in cost and start-up time, embed experience with market mechanism operation, and benefit from reforms and improvements currently underway. However, to the extent that the FVA and NMM may differ in objectives and procedures from the existing Kyoto Protocol mechanisms, the creation or use of different institutions could prove more effective and efficient.

D. Relationship with other sources of support and finance

16. The relationship of the FVA and NMM with other sources of support and finance under the UNFCCC has yet to be clarified. Some Parties and observers encourage further consideration of how the FVA and NMM could complement support and financial instruments such as the Green Climate Fund (GCF), the technology mechanism, and nationally appropriate mitigation actions (NAMAs). Other Parties and observers suggest that the requirement for various approaches to avoid the double counting of effort would preclude the use of GCF funding, technology, and other commitments to support approaches that might lead to units used to achieve mitigation commitments and/or targets. As one option, a bright line could be established: units from approaches supported by the GCF, technology mechanism, or other specified support would be ineligible or not recognized under the FVA or NMM. Another option would be to allow for support for elements of various approaches (e.g. capacity building, program development) that are not directly associated with the acquisition of units.

17. Parties have expressed interest in how new market-based mechanisms, including those that might be recognized under the FVA, might assist in supporting NAMAs. Some observers have suggested a bright line be established between NAMAs that are implemented unilaterally or with international support and those actions that generate internationally-transferable emission reduction credits (which some also term as “credited NAMAs”) in order to avoid double-counting (see below), and furthermore that crediting (or trading) be reserved for higher cost technologies and measures, so that developing countries can use lower-cost technologies and measures to achieve their own mitigation commitments and/or targets or NAMAs, where appropriate.

18. While the Parties have emphasized that various approaches must avoid a double counting of effort, the precise scope of “counting” has yet to be established. Parties and observers have identified three forms of double counting of effort that could occur. The **first form of double counting** is the most straightforward and commonly cited: the risk that a given ton of emission reductions could be accounted for in more than one unit. As discussed below, careful accounting systems and registries may be able to address this risk.

19. The **second, related form of double counting** could occur if the same emission reduction is counted towards the achievement of the mitigation commitment and/or target of both the country where the reduction occurs and the country that has acquired units corresponding to this quantum of reduction. According to the United Nations Environment Programme, in the absence of rules to address this risk, the extent of double-counting stemming from use of international offset units could exceed 1 Gt CO2e by 2020, increasing the projected “emission gap” by approximately 10%. One approach to address this issue would be for the purchasing country to count units acquired from another country as an offset, while the same amount is added, as an emission, to the inventory accounts of the host country. The host country could decide on what to count as a contribution to the achievement of its own mitigation commitments and/or targets, and allow only remaining emission reductions to be used internationally. This form of potential

double counting is not unique to various approaches – it also affects the use of certified emission reductions (CERs) from the CDM – and would need to be addressed in how mitigation commitments and/or targets are defined and assessed or analysed.

20. Some have expressed concern over a potential **third form of double counting** of effort: counting investments in international units (offsets) under the FVA, NMM, CDM, or other approaches towards the fulfilment of financial and technology transfer commitments as well as towards the fulfilment of mitigation commitments and/or targets. Some observers have argued that it should be possible to "blend" different sources of financing for mitigation actions, in recognition of the potential complementarity of various approaches and other policy tools, while others have suggested that there should be a bright line between supported or unilateral NAMAs and those actions that generate internationally-transferred units.

E. Net decrease and/or avoidance of greenhouse gas emissions

21. In decision 2/CP.17, paragraph 79, the COP emphasized that various approaches must "achieve **a net decrease and/or avoidance of greenhouse gas emissions**", building on decision 1/CP.16, paragraph 80, which called for "ensuring a net decrease and/or avoidance of global greenhouse gas emissions" in respect of new market-based mechanisms. While the principle of conservativeness applied in offsetting programs such as CDM, and the associated intent to increase certainty, has often biased offsetting methodologies towards crediting fewer emission reductions, the concept of net decrease or avoidance represents a departure from prior offsetting mechanisms. No longer is the implicit goal to issue one ton of credit for each ton of verifiable emission reduction: under various approaches, mechanisms must seek to credit less than a ton for each ton of verifiable emission reduction. However, the extent to which a net decrease or avoidance should be achieved has not been specified.

22. Similarly, **the reference point for net decrease or avoidance of greenhouse gas emissions** has yet to be clarified.[4] If the reference point is a single market-based or non-market-based mechanism recognized through the FVA or created under the NMM, then a net decrease or avoidance can be achieved through procedures such as stringent baselines, discounting credits (at the point of issuance or use), shortened crediting periods, or the mandatory retirement of a portion of units. However, such procedures alone may not be sufficient if the goal is to achieve the "net environmental or atmospheric benefit" that some Parties and observers have argued for. To achieve a net environmental benefit, the reference point would likely need to be the fuller international emissions accounts or inventories used to assess or analyse the attainment of mitigation commitments and/or targets, in order to ensure that emission reductions not credited in one mechanism (e.g. NMM) are not otherwise credited in another (e.g. CDM, FVA mechanism) or perhaps counted towards the achievement of the host country's mitigation commitment and/or target. As with the potential double counting of emission reductions between host and buyer country, the importance of this concern will depend on how host country mitigation commitments and/or targets are defined and analyzed. If deemed important, then approaches to achieving a net decrease that involve retirement or set aside of units may be preferable to those that solely use ambitious baselines, shortened crediting periods, or discounting factors, since the former would enable an easier accounting of the amount of units that represent a net contribution to emission reductions or removals.[5] These net

[4] All "net" accounting is by definition relative to a reference point, which in this case has not yet been clearly defined.

[5] That said, the latter approaches, such as shortened crediting periods or discount factors, can be used to determine the amount of units retired.

contribution amounts can then be tracked and added to national accounts if and as appropriate.

F. Other issues

23. Interest in, and inputs on, various approaches relate largely to mechanisms or instruments that can involve the **international trading of units**. Purely domestic policy instruments such as emissions trading systems with no linkage to external markets are generally the prerogative of host country governments; the outcome of such instruments will be sufficiently reflected in national inventory accounts, with no concerns related to additionality, permanence, or double counting. However, there could be exceptions, for example, where a market-based or non-market-based mechanism addresses emissions or removals that are not covered by the scope of mitigation commitments and/or targets.

24. The principle of **supplementarity** established in the Kyoto Protocol – that the use of the flexibility mechanisms shall be supplemental to domestic action and that domestic action shall thus constitute a significant element of the effort made by each Party included in Annex I to meet its quantified emission limitation and reduction commitments under the Kyoto Protocol, as set out in decision 2/CMP.1, paragraph 1 – is noted with respect to the NMM, as set out in decision 1/CP.16, paragraph 80(f). Some Parties and observers suggest, however, that developed countries should limit the use of international units from the FVA as well as from the NMM. Under the Kyoto Protocol, supplementarity restrictions, for instance, limiting the use of credits from CDM and JI to no more than a specified fraction of emission reductions achieved, have been implemented domestically by some Annex I Parties. However, no quantified supplementarity restrictions have been implemented internationally under the Kyoto Protocol.

25. While Parties to the Kyoto Protocol established assisting developing countries in achieving **sustainable development** as an explicit purpose of the CDM, sustainable development objectives have thus far played a less prominent role in decisions regarding various approaches. While it is not mentioned in decision 2/CP.17, preambulatory language in decision 1/CP.16 "[emphasizes] the importance of contributing to sustainable development, including through technology transfer and other co-benefits" and "[recognizes] the importance of enhancing sustainable lifestyles and patterns of production and consumption," Accordingly, some Parties and observers suggest that sustainable development criteria should be considered for the FVA and NMM, or that, at a minimum, activities and actions supported through the FVA or NMM must demonstrate "no net harm", potentially as a component of safeguarding environmental integrity.

III. A framework for various approaches

A. Overview

26. Parties are currently pursuing, or have indicated their intention to pursue, a broad spectrum of mitigation approaches beyond those that are operated under the UNFCCC.[6] These approaches encompass market-based and non-market-based approaches. These approaches are operated at any number of levels, whether international, multilateral, bilateral, national, or sub-national. As reflected in the submissions, workshops, and

[6] The COP recognized this in the preamble to section II.E of decision 2/CP.17, "noting that Parties may, individually or jointly, develop and implement [various] approaches in accordance with their national circumstances".

discussions under the AWG-LCA to date, the FVA is widely understood to be a means for considering how these approaches fit together and also how these approaches are positioned in relation to approaches that are operated under the UNFCCC.

27. This section examines how the FVA might operate. It begins by providing some context for the FVA by listing possible approaches that may be considered. It then explores the purpose of the FVA, as different objectives may lead to different methods of ensuring that adequate standards are met, that the double counting of effort is avoided, and that a net decrease and/or avoidance of greenhouse gas emissions is achieved. It then outlines the advantages and disadvantages of the two main models for the FVA that have been proposed, namely: (a) the transparency-oriented model; and (b) the approval-oriented model. Finally, possible options for moving forward are explored.

B. Examples of approaches that could be considered under the FVA

28. This section sets out examples of approaches that could be considered under the FVA, as noted in the submissions. These examples are purely illustrative. Their inclusion here is aimed at conveying a sense of the scope and scale of possible approaches under the FVA with reference to initiatives that are currently operational or under consideration**.**

29. **National offset programs**: National offset programs could be considered under the FVA, particularly if they allow for the transfer of credits outside the country. For example, Australia's Carbon Farming Initiative (CFI), which began in December 2011, allows the generation of offset credits from agriculture, land use, and landfill waste activities, and for the sale of such offset credits to overseas buyers. In addition, several developing countries are exploring the development of domestic crediting programs (including through the World Bank's Partnership for Market Readiness), which could enable offset credits to be sold to international buyers. In the case of the CFI, an Australian emission registry would track the issuance, trading, and retirement of units. The CFI uses positive lists in determining additionality.

30. Recognition under the FVA might also be sought for **units generated through regional and sub-national emissions trading and offset programs**. For example, California's cap-and-trade program includes eligible project types and methodologies that allow for issuance of international offsets originating in Canada or Mexico. It has also opened a window to accept sector-based offset credits from crediting programs in eligible developing countries or jurisdictions, for instance REDD+ credits from sub-national deforestation projects located in Mexican and Brazilian states (with which California has already signed memoranda of understanding).

31. **Bilateral offset mechanisms:** Japan's Bilateral Offset Credit Mechanism (BOCM) is an example of a bilateral offset mechanism that could seek recognition under the FVA. The BOCM aims to promote the transfer of low-carbon technologies, products, and services to developing countries, resulting in emission reductions that would be used to meet Japan's post-2012 emission reduction target. Feasibility studies are underway in numerous countries in preparation for the anticipated 2013 start date of the BOCM. The BOCM is developing its own procedures to meet environmental integrity standards, building on experience gained from the CDM. Proposals include: using conservative default values to reduce monitoring burdens; broadening third-party verifiers to include institutions beyond designated operational entities under the CDM, such as entities certified under the International Organization for Standardization; and considering eligibility using approaches such as positive lists or performance benchmarking. The BOCM would create its own registry system for emissions units.

32. Parties may seek to recognize under the FVA **emission units (allowances) acquired and retired from emissions trading systems in other countries.** As noted above, purely domestic emissions trading systems are not necessarily relevant to the FVA. However, where allowances are made available internationally (e.g. through linkage among emissions trading systems or the ability to purchase allowances), a country may wish to acquire and retire allowances from other countries as a means to achieve its own mitigation commitment and/or target. In such cases, Parties may wish to seek recognition for such units under the FVA. Currently, emissions trading systems are in place or under development or consideration in a number of countries and regions, including the European Union, Australia, New Zealand, sub-national jurisdictions in North America, the Republic of Korea, Mexico, and China, among others. Some linkages between emissions trading systems have been discussed, such as between the US state of California and the Canadian province of Quebec under the context of the Western Climate Initiative. Australia's emissions trading system is also designed to link with other international trading systems: for instance, linkage discussions are occurring with New Zealand and the EU. Other countries, such as the Republic of Korea, have indicated an interest in considering linkage in the future. The scale of such international allowance flows could be considerable, but are difficult to predict.

33. Parties could also seek to use and gain recognition for **units from voluntary international offset programs**. In 2011, voluntary programs issued 95 million tCO_2e of international offsets, and they are projected to reach 600 million tCO_2e by 2020. Some voluntary programs such as the Verified Carbon Standard (VCS) adhere closely to CDM methodologies and procedures for international offsets where CDM methodologies exist and apply. Voluntary programs continue to develop new methodologies, which are becoming more relevant for regulatory contexts (e.g., the case of the Climate Action Reserve and California). Some programs have explored strategies for simplification and reduced transaction costs, such as through benchmarking and programmes of activities. The programs generally require approved or accredited verifiers, and have established registries.

34. Parties may also seek recognition for **new international non-market-based mechanisms** as means to operationalize the principles of equity and common but differentiated responsibilities under the Convention. It was suggested that new mechanisms might include a joint mitigation and adaptation mechanism for the integral and sustainable management of forests, a new mitigation mechanism, and a new adaptation mechanism. The primary purpose of these mechanisms would be to channel new, additional, and reliable funding from a variety of public and private sources.

35. Finally, Parties may also seek recognition for emission reductions and removals generated by **domestic non-market-based mechanisms**. Non-market-based mechanisms that have been proposed include feed-in tariffs, efficiency standards, combining mitigation finance with existing development programmes, green investment funds, revolving funds, and concessional loans, taxes, and subsidies. Some Parties have also suggested that some emissions sources such as refrigerants and high GWP gases, in general, might be better addressed through non-market mechanisms, such as alternative regulatory approaches.

C. Purpose of a framework

36. Aside from promoting and enhancing the cost-effectiveness of mitigation actions (2/CP.17, para 79), **the purpose and general form** of the FVA have yet to be fully articulated. Parties have offered a range of views on purpose that echo the broader debate over the nature of the mitigation commitments and/or targets out to 2020, and the process by which achievement of these mitigation commitments and/or targets will be assessed.

Some Parties see the FVA as fulfilling largely a transparency function, informing other Parties of the emission reduction units and methodologies outside the UNFCCC that are used to meet mitigation commitments and/or targets, based on a limited set of common standards that could be adapted to suit national circumstances. Some other Parties emphasize that the FVA should serve the purpose of assessing and approving mechanisms and/or units that exist outside the UNFCCC and that Parties intend to use towards their mitigation commitments and/or targets. Some simply state that units created under bilateral, domestic, and voluntary offset programs should not be recognized for the purposes of meeting international commitments, based in part on the potential for bias and pressure to maximize credit generation.

37. Despite a divergence of views in how they might be achieved, the following objectives for the FVA tend to be widely shared among Parties and observers:

- Create a process by which approaches developed outside UNFCCC could be recognized under UNFCCC, and counted towards national mitigation commitments and/or targets;
- Ensure that such approaches can meet the standards for environmental integrity that are set out in decision 2/CP.17, paragraph 79;
- Enhance the transparency and consistency in the generation and use of units from these approaches.

38. Parties and observers that tend to promote carbon market approaches have also argued that the FVA should enable greater fungibility and a more global market for tradable units, and maintain trust in international market mechanisms.

D. Design of a framework

39. Reflecting upon the ideas and concepts put forward by different Parties, observers have characterized two broad models for the FVA, one that could be termed a "mechanism approval" model and the other a "mechanism transparency" model. The "mechanism approval" model presumes more centralized governance with the authority to approve various approaches put forward by Parties for use in meeting mitigation commitments and/or targets. The "mechanism transparency" model presumes less centralized governance with more limited authority, one that might establish general principles and define minimum transparency requirements, but not be vested with the ability to approve or reject, specific approaches, mechanisms, or units. Roughly in line with these two models, Parties and observers have offered a range of methods to ensure that various approaches under the FVA would meet the environmental integrity standards established in decision 2/CP.17, paragraph 79. A possible compromise option may exist between these two models, in which a Party seeking to use one or more approaches must meet a set of internationally agreed eligibility criteria, but the specific approaches themselves are not the subject of international review.

40. Some Parties and observers express concern that a proliferation of approaches, unless guided by common standards or principles, could lead to a fragmentation of carbon markets and mitigation responses, increasing overall costs of mitigation and thereby reducing levels of investment.

Meeting standards that deliver real, permanent, additional and verified mitigation outcomes

41. Under a stricter, approval-based model, the FVA could include elements such as:

(a) **Eligibility criteria for mechanisms, activities, and/or sectors.** Criteria could, for example, direct mechanisms towards sectors and activities that are at lower risk for non-additionality or reversals, similar to the notion of positive and negative lists discussed in the context of the CDM. Eligibility criteria could also be designed to reduce the potential for overlap with existing or prospective mechanisms, such as the CDM or NMM, for example by deeming specific emissions sources, sectors, or activities eligible in no more than one mechanism.

(b) **Requirements to use a specific environmental quality procedures**, such as elements of baseline and monitoring methodologies (e.g. the CDM methodological "tools"), or prescribed validation and verification procedures.

(c) **Generalized principles and guidelines for baseline and monitoring methodologies, and validation and verification procedures**. Many offset programs use very similar principles, guidelines, and procedures. These include for example, the use of conservative assumptions, especially when accounting for uncertainty, procedures for quality assurance and control of key data and assumptions, procedures to account for the risk of emissions leakage, or materiality principles such as those currently used for JI and under consideration for the CDM. The FVA could establish requirements that crediting mechanisms adhere to basic principles and provide procedures that address key elements of well-established and respected offset programs. For example, it could provide guidelines for the standardization of baselines and reference levels for project-based mechanisms and sectoral mechanisms, respectively.

(d) **Evidence, through documented analysis, that mechanisms are as rigorous and conservative** with respect to baselines, additionality, monitoring and verification as the CDM or other established programs.

42. Some Parties, among those advocating for a more approval-based model suggest that these elements should be identical to those adopted for the NMM, in order to ensure consistency and comparability of units.

43. The key feature of this model would be the establishment of a process with the authority to approve or reject approaches, mechanisms, and/or units proposed by Parties.

44. Some suggest that under this approval-based model, the FVA could employ the same or similar procedures and/or institutions as used for the CDM/JI or the NMM. While approaches, mechanisms, or units approved under this model might closely resemble those that might be developed under the NMM, FVA-approved approaches and mechanisms would administered by one or more Parties (or entities authorized by them) rather than by the UNFCCC, as would likely be the case under the NMM. However, some proposals for the NMM might allow for country-led and administered mechanisms, in which case, there would be little if any difference between the NMM and an approval-based FVA.

45. Under a transparency-oriented FVA model, Parties would declare the approaches and units that they are using, produce the methodologies employed for their generation, and explain how units are viewed as representing real, additional, permanent, and verifiable emission reductions. Parties would design and implement their own approaches and the UNFCCC would play a facilitative role, providing assistance with basic principles and reporting requirements. Some Parties have argued that methodologies and procedures for meeting these standards are best developed by the implementing Parties, reflecting different national circumstances and priorities, as has been done for crediting and trading programs that already exist outside the UNFCCC. If this declaration satisfies reporting requirements and general principles established for the FVA, units would be recognized under the UNFCCC.

46. Without a formal review and approval process, a transparency-oriented model faces the challenge of how to demonstrate that environmental integrity standards (real, additional, permanent, verified) would be met. UNFCCC requirements under the FVA

might only indicate specific elements that would need to be reported, such as eligibility criteria, methodology principles, methodology approval processes, validation and verification procedures, third-party roles and accreditation, and approaches to track and manage projects and credits. The FVA could also create a process to review the experience of various approaches, compile, maintain, and update "best practice" guidance. In addition, Parties might agree on common procedures at a very high level, such as the requirement that IPCC guidelines and principles are followed for emissions reporting. Any deviations to account for national circumstances would then be recorded along with evidence to support the claim of environmental integrity, but such deviations would not necessarily need to be approved by a UNFCCC body.

47. Under a transparency-oriented model, claims of environmental integrity might be automatically accepted, as long as adequate information justifying such claims is provided. Given the counterfactual nature of crediting mechanisms in particular, and uncertainties related emissions measurement, no claims of environmental integrity are 100% certain, even for units generated under the mechanisms such as CDM and JI that have careful international review and approval procedures. Nonetheless, concerns have been raised that given the potential for bias and pressure to maximize credit generation, the lack of an internationally-agreed assessment of unit quality could pose a challenge for building credibility and trust in units recognized under the FVA.

48. Options may exist to help address concerns regarding environmental integrity under a transparency-based model. Parties could, for example, require the verification bodies adhere to specific verification standards established by international institutions such as ISO. However, these standards tend to be quite general and generally inadequate for ensuring that the standards elaborated in paragraph 79 of decision 2/CP.17 are met. (For example, ISO 14064 does not address how additional can be assessed.)

49. Alternatively, Parties could elaborate a systematic and independent review and assessment process for mechanisms and units, which would serve to subject them to an added level of scrutiny, without requiring a positive determination or approval under the UNFCCC. Public availability of independent findings might dissuade Parties from the use of units or approaches that are not assessed positively with respect to standards; however, Parties would still retain discretion to use whatever approaches and units fulfil the transparency and other reporting requirements of the FVA.

50. Channels for measurement, reporting, and verification (MRV) already exist under the UNFCCC for providing and reviewing information related to various approaches through biennial reporting, international assessment and review (IAR), and international consultation and analysis (ICA) processes. Reporting and review under the FVA could be integrated within these established MRV channels or conducted separately. This choice exists regardless of whether a more transparency-oriented or an approval-based model for the FVA is pursued. Full integration within the review and assessment (or consultation and analysis) could avoid the time and costs associated of an added FVA-based process, and allow consideration of the quality of units transferred in the context of how they are used to assess progress towards mitigation commitments and/or targets (important for avoiding double counting and achieving a net decrease or avoidance of emissions). However, the mandate and scope for these existing MRV channels might need to be expanded; furthermore, the expertise for assessment and analysis of various approaches (e.g. on specific sectors, market mechanisms, or policy instruments) might expand beyond that otherwise implicated for these MRV processes.

51. The timing of mechanism review and assessment under the FVA, as well as of an approval process if created, is another important consideration. Parties, as well as other participants in various approaches, may wish to have some level of certainty regarding the use of units in order to reduce risks, spur investment and, where appropriate, enable a

smoother functioning of markets. Biennial reporting, international assessment and review, and international consultation and analysis processes involve *ex post* analysis or assessment, whereas prospective actors in a given mechanism would generally desire that it undergo *ex ante* review, assessment, and/or approval. The availability of detailed and/or best practice guidelines might also be helpful in reducing such risks. These considerations suggest that any process for mechanism review, assessment, and/or approval might be best undertaken separate from the established channels for measurement, reporting, and verification, and initiated at the request of Parties at time that would be most supportive of the development of various approaches.

52. The role of the UNFCCC, COP, and the secretariat in managing or administering FVA-related processes will follow from a clearer understanding of the purpose and desired form of the FVA. Under a transparency-oriented model, it would be more facilitative and less intensive. It could encompass the development of reporting guidelines, general principles, best practice guidance (and the criteria for evaluation of approaches that this would be based on), and/or the management of an international transaction log. These tasks could be undertaken by bodies created by, or institutions and agencies under the aegis of, the UNFCCC or COP. For example, an UNFCCC-tasked expert group could work with the secretariat to develop best practice guidance for various approaches, much as the Expert Group on Technology Transfer (EGTT) and the secretariat used workshops with, and input from, Parties and observers, to develop best practice guidance for Technology Needs Assessments. CDM panels or national communications review teams could be adapted to provide review and assessments (or consultation and analysis) of various approaches proposed for recognition. Under an approval-based model, existing bodies such as the CDM Executive Board could be adapted, or new bodies created, to undertake the review and approval of proposed approaches or mechanisms. The former approach might be less costly and time-consuming, and could build on existing expertise, whereas the latter approach might allow for greater flexibility and ability to fulfil the agreed and unique purposes of an FVA.

53. As with the NMM, some Parties view host countries as playing a more significant role in the implementation of various approaches, as compared with existing the Kyoto Protocol mechanisms. They could be responsible for establishing methodologies and procedures for ensuring additionality and permanence, setting baselines, performing MRV activities, and issuing tradable units and/or implementing non-market approaches. Accordingly, the role of the UNFCCC, COP, and the secretariat would be much more limited than in the case of the Kyoto Protocol mechanisms.

54. In summary, as compared with a transparency-oriented model, an approval-based FVA model could offer greater fungibility of units, reduced market fragmentation and transaction costs, and enhanced credibility and trust, but faces resistance from Parties who desire greater flexibility in the development and use of various approaches. Under such a model, however, the development of common rules, criteria and an approval process could limit breadth and impose delays in the development of various approaches, as well as lead to contentious disagreements among Parties as decisions are made.

Unit tracking

55. The effective tracking of units recognized under the FVA and transferred among Parties is central to the achievement of the standards established in paragraph 79 of decision 2/CP.17. Without the ability to reconcile the flows of emissions units or quantities, the avoidance of double counting and the achievement a net decrease and/or avoidance of emissions will be difficult to ensure. Effective tracking will also increase the

fungibility of tradable units, and in principle, enhance the cost-effectiveness of international emissions trading.

56. The question of unit tracking, however, cannot be resolved within the context of the FVA alone. The accounting methods and/or system that Parties use to track progress towards meeting mitigation commitments and/or targets will dictate, or at least strongly influence, how units recognized under the FVA will be used and accounted for. To this end, some Parties have called for the use of a comprehensive, centralized unit accounting system, akin to, or building on, the system of national registries and the ITL that are established under the Kyoto Protocol. Other Parties, in particular those who argue for a more decentralized, transparency-oriented FVA model, indicate a desire for greater flexibility than a centralized system might allow for.

57. Registries are the backbone infrastructure of all major emissions trading systems. They hold the unit accounts of authorized entities (e.g. governments, project participants, companies with emissions obligations) and as appropriate issue new units (as in the case of the CDM registry) or "settle" emissions trades by delivering units from the accounts of sellers to those of buyers (as in the case of Annex B Parties' national registries under the Kyoto Protocol). Under the Kyoto Protocol, each national registry is linked to the ITL that is administered by the UNFCCC secretariat. The ITL verifies registry transactions and conducts policy and technical checks to ensure that they are consistent with the rules agreed under the Kyoto Protocol.

58. The ITL could be adapted, or a similar log created, for use under the FVA, and in so doing help to minimize the risk of double counting of the same emission or emission reduction unit and to allow for greater international fungibility of FVA units. The use of an ITL would require that all Parties using or issuing units under the FVA to maintain appropriate registries.

59. While Parties appear to be generally supportive of the concept of requiring the establishment and use of registries for the purpose of international transfers of emission or emission reduction units, the use and role of an ITL would depend on the purpose of the FVA. Under a transparency-oriented model, Parties could bypass the use of an ITL and conduct their own inter-Party transfers without any UN oversight. This approach would provide maximum flexibility and avoid the need to adapt or create a new ITL, but it would be potentially much more challenging to coordinate among various registries, to ensure the avoidance of double counting, and to support a global carbon market.

60. The use of an ITL could enhance trust and fungibility in international units recognized under the FVA. An ITL could simply conduct technical checks on transferred units to ensure their authenticity and serve to enhance the transparency of transactions. Consistent with any further requirements agreed to by Parties on FVA approaches and units, further policy checks could be conducted to ensure that these requirements are adhered to. This latter option would provide the greatest assurance that standards are met.

Other issues

61. Rules or a process may be needed to manage potential overlaps between units recognized under the FVA, and units issued through other mechanisms (e.g. CDM and the NMM). Under a more centralized model, potential overlaps could be managed through distinct eligibility of sectors, activities, or emissions sources among potentially competing mechanisms, and corresponding policy checks under an ITL. Under a less centralized model, the onus may fall on host countries to demonstrate how units from potentially mechanisms do not represent the same emission reductions.

62. The implementation of the FVA – such as the operation of a tracking system, new review or approval processes, and/or organization of reporting activities – could have cost implications for the UNFCCC and secretariat. The means to finance these activities would need to be agreed.

E. Next steps

63. Greater clarity on the purpose of the FVA would assist in making the key design decisions, as discussed above, including: the extent and nature of FVA guidance and/or rules; the extent and nature of a review and assessment (or consultation and analysis) process for approaches recognized under the FVA; the use and design of a common accounting framework for emissions units and/or registries and transaction logs; and whether an approval process would be included for mechanisms and/or units.

64. Greater clarity on the nature and extent of potential use of various approaches under the FVA could also be useful in understanding the implications of future decisions. It may be challenging to design the FVA in light of the wide range of possible approaches from market to non-market, the wide variety of potentially eligible segments of the economy (including those not covered under the Kyoto Protocol, such as bunker fuels), and the scale of investment and unit flows from small to large fractions of effort needed to meet mitigation commitments and/or targets. Consequently, additional information from Parties regarding their possible or intended uses of the FVA, mechanisms developed or under development, and how such mechanisms would achieve the standards described in paragraph 79 of decision 2/CP.17 and compare with existing practices could be helpful for its further development.

IV. The new market-based mechanism

A. Purpose

65. The purpose of the NMM is set out in decision 2/CP.17, paragraph 83, namely "to enhance the cost-effectiveness of, and to promote, mitigation actions".

66. The Parties have called for a relatively fast track for operationalizing the NMM. They have requested the AWG-LCA "to conduct a work programme to elaborate modalities and procedures for the mechanism … with a view to recommending a decision to the Conference of the Parties at its eighteenth session." In light of this request, and to expedite the elaboration of modalities and procedures, this section of the technical paper is organized around a possible structure for elements of these modalities and procedures.

B. Design guidance

67. Decision 2/CP.17 states that the NMM is to be guided by the seven issues set out in decision 1/CP.16, paragraph 80:

(a) **Ensuring voluntary participation of Parties, supported by the promotion of fair and equitable access for all Parties:** Some Parties emphasize that the NMM should not introduce emission reduction commitments or constitute an emissions cap for developing countries. While no Party suggests that the NMM should fulfil such a role, some Parties and observers view the NMM as creating a bridge for host countries to eventually move towards binding economy-wide targets. With respect to supporting fair and equitable access, some Parties emphasize the importance of capacity building and

facilitated participation, and some have also called for adequate opportunities for least developed countries and small island developing States to participate. At the same time, some Parties suggest that the scale of potential emission reductions should be a criterion for selecting broad segments of the economy, which might focus the NMM on more rapidly developing countries with broad segments that offer larger emission reduction potentials.

(b) **Complementing other means of support for nationally appropriate mitigation actions by developing country Parties:** Some Parties note that the NMM provides an opportunity to stimulate and support NAMAs through finance and investment. Some Parties also highlight the risk that same efforts could be double counted across NMMs and NAMAs, and have thus called for clear distinctions between activities that are issued internationally fungible units through the NMM and activities that are undertaken or supported as NAMAs, a line that is somewhat blurred under the concept of credited NAMAs, as discussed below. Some Parties further argue that the NMM should target high cost mitigation opportunities, so that lower cost mitigation options can be used by developing countries, to meet, where relevant, their own domestic mitigation commitments and/or targets.

(c) **Stimulating mitigation across broad segments of the economy:** In comparison with the project-by-project approach under the CDM, the NMM would promote mitigation across one or more sectors, sub-sectors, or groups of emissions sources. By aggregating emission sources and sending market signals across broad segments of an economy, the NMM could, in principle, spur much deeper emission reductions than might be achieved through project-based approaches. However, as noted below, and discussed more extensively in the literature on sectoral crediting, aggregated crediting mechanisms issue credits based on the performance of an entire "broad segment" and thus face the added challenge of appropriately transmitting incentives to, and rewarding performance at, the level of the individual entities. Typically it is the individual entities – emitting facilities or facility owners and operators – that make the operational and investment decisions capable of directly reducing emissions. As a result, some Parties and observers suggest that host countries should consider approaches to create incentives for lower-emission investments and operations such as the provision of some amount of credits to better performing entities or domestic policies, such as regulations, taxes, or subsidies.

(d) **Safeguarding environmental integrity:** Components of safeguarding environmental integrity are further elaborated in decision 2/CP.17, paragraph 79, requiring that approaches "must meet standards that deliver real, permanent, additional and verified mitigation outcomes" and avoid double counting of effort. These standards, as discussed below, remain to be developed in the context of the NMM.

(e) **Ensuring a net decrease and/or avoidance of global greenhouse gas emissions:** Decision 2/CP.17 reiterated this requirement for both the NMM and FVA. Possible means to achieve a net decrease and/or avoidance are discussed in Section II above, and have tended to focus on the use of ambitious baselines or targets in the context of the NMM.

(f) **Assisting developed country Parties to meet part of their mitigation targets, while ensuring that the use of such a mechanism or mechanisms is supplemental to domestic mitigation efforts:** Parties and observers note the possibility that developing countries might also use NMM units to meet their own mitigation commitments and/or targets, which is neither mentioned nor precluded here.

(g) **Ensuring good governance and robust market functioning and regulation:** Transparency of information and decision-making, as discussed in Section III

for the FVA, could be an important element of meeting this objective. Governance options are discussed further below.

C. Form of the NMM

68. Discussions and submissions regarding the NMM have focussed on the two broad approaches to market-based mechanisms: crediting and trading. Crediting systems, such as the CDM, JI, or the types of bilateral, domestic or voluntary offset programs described in Section III, issue units based on the extent to which verified emission reductions are lower than a counterfactual crediting threshold (also known as a reference level). In the case of most existing crediting mechanisms, this threshold aims to represent what would have likely occurred in the absence of the incentive provided by the crediting mechanism. Alternatively, trading systems, such as international emissions trading under the Kyoto Protocol or the European Union Emissions Trading System, involve the establishment of emission limits and the distribution of a corresponding number of tradable emission allowances that entities must hold in order to emit. Akin to crediting mechanisms, trading systems result in emission reductions to the extent that emissions limits or targets are set below business-as-usual levels, and are achieved or exceeded by covered emitters. Trading systems issue units (or allowances) *ex ante*, while crediting systems issue units (or credits) on an *ex post* basis.

69. As described below, Parties and observers have offered several models for including crediting, trading, or both approaches within the NMM. These models have been discussed and explored in the literature for several years, typically under the rubric of sectoral crediting or sectoral trading. Some Parties suggest that the NMM should accommodate both crediting or trading systems, based on assessing emission reductions at an aggregate level (sector, multi-sector, or other groups of sources). While there are differences in views as to the appropriate scale of aggregation of "broad segments of the economy", only one Party suggest that the mechanism should be "project-based", much like the CDM.

70. Among the conceptually overlapping models for an NMM, offered by Parties and observers with varying levels of elaboration are:

(a) A highly centralized mechanism that closely resembles or builds upon the current project-based crediting form of the CDM, with common rules and methodologies that apply to all countries;

(b) A more host-country-driven mechanism that accommodates different forms of implementation (crediting and trading) in host countries. Under this model, the NMM would be a rules-based system agreed under the UNFCCC, with established common reporting, review, and issuance procedures, and considerable discretion for host countries to design and implement specific approaches;

(c) A Net Avoided Emissions (NAE) mechanism that could accommodate a various of initiatives that could include compensation for keeping oil reserves in the ground;

(d) An NMM proposal designed to i) reflect the concerns of countries that already may have low carbon intensities or "assets" (and thus may not stand to benefit from a NMM that is sector- rather than project-focused), e.g. through baselines that are tied to global average values and ii) enable a multi-sectoral "program-based" approach, in which countries could determine how its "own contribution" would be made (in contrast to a sectoral approach wherein each sector would be required to make its own contribution);

(e) Various suggestions of for "NAMA crediting" from project-specific benchmark based crediting and policy crediting to various forms of sectoral crediting.

While invoking NAMAs, it is not clear how these suggestions are conceptually distinct from other proposals for an NMM (or FVA approach) that do not explicitly mention NAMAs. As a result, this paper does not further discuss NAMA crediting *per se*.

71. With the exception of the first model noted above, most suggestions for the NMM point to a more framework-like structure that could accommodate various forms of crediting and trading driven and implemented by host countries. Furthermore, though many Parties and observers refer to trading approaches, the emphasis of most submissions and discussions to date has been directed to crediting approaches

D. Eligibility requirements

72. Some Parties suggest **requirements for participation in the NMM as a host country.** Some of these proposed requirements are relatively straightforward, such as being a developing country Party or having in place adequate systems for the measurement, reporting, and verification of emissions and registry systems. Others, such as requiring host countries to have a sectoral or economy-wide target well below business-as-usual levels and a national system for the estimation of emissions and/or removals (being current and comprehensive with respect to inventory reporting) might be perceived as more difficult to comply with. At the same time, such requirements could be seen as natural pre-requisites to ensuring a net decrease and/or avoidance of global greenhouse gas emissions and safeguarding environmental integrity per paragraphs 80(d) and (e) of decision 2/CP.17.

73. While paragraph 83 of decision 2/CP.17 simply notes that the NMM "may assist developed countries to meet part of their mitigation targets or commitments under the Convention", some Parties suggest **eligibility requirements for countries that wish to hold, transfer, and use units,** while others suggest that the NMM should be open to all Parties to the Convention. For example, it is suggested that only countries with internationally legally binding emission reduction targets that are subject to international measurement, reporting and verification should be eligible to use the mechanism. While countries with internationally legally binding emission reduction targets (under the Kyoto Protocol) have expressed the greatest interest in operationalizing the NMM, such a restriction may have limited practical effect; on the other hand, however, by limiting fungibility and potential markets, it could lower the future value of NMM units and thus the scale of potential mitigation action. It is also suggested that developing countries with mitigation targets could use NMM units.

E. Governance, roles, and responsibilities

74. While the NMM is to be "operated under the guidance and authority of the Conference of the Parties", the process and scope of this guidance and authority has yet to be defined. Under a governance model similar to the CDM, the NMM could be governed by an international body akin to the CDM Executive Board, charged with developing the rules and procedures for determining additionality and baselines, for undertaking monitoring and verification, for reporting on activities, for accrediting verifiers, for reviewing and certifying activities, and for issuing tradable units.

75. As noted above, many Parties suggest that under the NMM, as compared with the CDM, host countries would play a greater role, for example in deciding on the exact form of a market-based mechanism (e.g. crediting and/or trading approaches, covered segments of the economy) and in developing baselines and crediting thresholds (the equivalent of CDM baseline and monitoring methodologies). Under a more host-country-driven

governance model, an international body would serve to provide guidance, review, and approval, rather than to undertake more detailed mechanism design, which would be left to host countries. Individual host country Parties would perform numerous other functions, including selecting segments of the economy and emissions to be covered, selecting among crediting or trading approaches, proposing baselines, thresholds and/or targets, and setting up systems for monitoring and verification, establishing a registry, implementing the crediting and trading program, and distributing units among domestic entities.

76. In general, a more host-country-driven governance model would allow for better tailoring to national circumstances, greater support for the development of national capacity and institutions, and reduce work requirements on the international body overseeing the NMM. In contrast, a more centralized (CDM-like or CDM-based) governance model, would place fewer administrative burdens on host countries (which might compromise "fair and equitable access"), could build to a greater extent upon existing institutions, and might lessen the challenge of making consistent international approval or rejection decisions, in response to mechanism proposals from multiple countries. To lessen the administrative burdens under a more host-country-driven model, the UNFCCC could facilitate participation" by providing some functions such as a registry to countries that otherwise lack adequate resources or capacity.

77. With respect to market functioning and regulation, a diversity of views were expressed. Several Parties and observers noted that providing incentives for participation by the private sector would be essential. It was also suggested that requirements for such participation should be elaborated, including through the demonstration of appropriate corporate social responsibility requirements.

F. Defining and selecting broad segments of the economy

78. As noted above, the NMM is predicated on the notion of "stimulating mitigation across broad segments of the economy." (decision 2/CP.17, paragraph 80(c)) Though the term "broad segments of the economy" is widely viewed as representing one or more sectors, subsectors, or other groups of emissions sources, Parties have not yet agreed on a precise meaning or definition.

79. Parties and observers have offered suggestions for defining broad segments of the economy. Some Parties argue that host countries should retain full discretion in defining what constitutes a broad sector. Others have suggested that "broad segments" have same definition across countries, in order to enable comparison and manage competitiveness concerns.[7] Broad segments could employ IPCC guidelines for emission by sector and subsector, and they could be specific to a service (e.g. heating or goods transport) or product (e.g. steel, cement, or electricity). Under a more bottom-up, host-country-driven NMM, segments would not necessarily be defined in advance, but instead could be defined as individual approaches are developed and reviewed, much in the same manner that CDM project types are defined as methodologies are submitted and approved.

80. Parties and observers have also offered suggestions for selecting appropriate broad segments of the economy, which could serve as guidance for host countries and/or as criteria for review and approval of individual crediting or trading approaches. Potential criteria (and/or guidance) for selecting sectors could include: the scale of emission reduction potential, the availability of adequate data to set baselines or thresholds and to measure performance, low uncertainty relative the quantity of emission units issued (high

[7] While common classifications of economies are in wide usage, such the UN's International Standard Industrial Classification of All Economic Activities (ISIC), national economies vary widely in terms of their structure, circumstances, and linkages.

signal-to-noise ratio), high likelihood that emission reductions are additional, and a positive contribution to sustainable development. Based on criteria such as these, some Parties and observers have noted the potential suitability for the NMM of electricity and some industrial sectors (cement, iron and steel, refineries, natural gas facilities). Some Parties have also suggested that REDD+ be discussed as a possible scope for the NMM.

81. Careful definition of the boundaries of broad segments of the economy can be important to provide proper incentives and to avoid unintended consequences. Cross-sectoral interactions may need to be taken into account, in order to ensure that emissions leakage does not result.[8]

G. Setting baselines, thresholds, or targets

82. The level at which thresholds or baselines[9] are set in a crediting mechanism, or emission targets are set in trading mechanism, will directly affect its environmental outcome. Many Parties and observers have stressed the importance of setting "ambitious" baselines, thresholds, or targets that are below 'business as usual' (BAU) levels, and that account for domestic mitigation action that is achieved without international crediting through the NMM (or other framework approach), in order to ensure that a net decrease and/or avoidance of emissions can be achieved.

83. There are many possible methods that can be used for setting baselines or targets. These methods typically fall into two categories: projection-based or performance-based. Projection-based baselines (or targets) involve the use of models or other methods to forecast future BAU emissions, with or without consideration of existing, planned, or likely new policies. Not surprisingly, such projections are subject major uncertainties, especially in the case of developing countries undergoing rapid growth and fast-changing conditions. As a result, to increase confidence that baselines or targets lead to additional emission reductions as well as a net decrease and/or avoidance of emissions, the use of conservative (low) estimates for BAU emissions (e.g. the low end of a plausible range of BAU estimates) has been suggested.

84. In contrast, performance-based baselines (or targets) typically reflect current lower-emitting practices within a given broad segment of the economy. Generally drawn more from historical rather than projected emissions performance, these types of baselines are often based on the emission intensities (e.g. tCO2e per unit of product or service) of top performers in a given category (e.g. best achievable technology or top 10^{th} percentile). Standardized baselines under development for the CDM, following recent guidance from the CDM Executive Board, provide an example of performance-based baseline methods. As compared with projection-based baselines, performance-based baselines can be subject to significant data availability constraints regarding the performance of existing facilities, and may not take into account potential future developments in technologies and practices. As a result, some observers have suggested that both approaches could be used to serve as a "cross-check" to improve robustness and appropriateness of crediting baselines.

85. Given the various options for setting baseline and trading targets, Parties may wish to establish rules or guidelines for their determination, in order to ensure environmental integrity and consistency. For example, these rules or guidelines could follow principles such as accuracy, completeness, reliability, sensitivity, materiality, and conservativeness.

[8] For example, the inclusion of some building materials such as cement in a crediting or trading mechanism may affect the use of steel or wood products, with either positive or negative emissions effects.

[9] Note that "crediting baseline" and "crediting threshold" are equivalent terms and tend to be used interchangeably in this context.

Common methods or transparency requirements could be established for the development of BAU scenarios. Common methods could take key differences among countries into account such as industrial structure and access to materials and technologies. Crediting baselines or trading targets could be set a certain percentage below BAU emission levels or alternatively, Parties could establish a process by which baselines or targets are negotiated. Parties may also wish to set a higher level of ambition for those broad segments of the economy that possess greater capabilities or lower relative abatement costs. In addition, Parties may wish to consider of the relationship among baselines and mitigation commitments and/or targets in order to avoid potential leakage across sectors and countries.

86. Crediting baselines and trading targets can be set on an absolute (total emissions) or intensity (per unit of physical production or economic output) basis.

H. MRV Provisions

87. MRV provisions could contain requirements for accuracy, transparency, data quality, data storage, and materiality, as well as roles and responsibilities for MRV such as the use and accreditation of verifiers. These provisions could include the use of common international standards.

I. Reporting and Review

88. A clear process for the review and approval of crediting and/or trading approaches is an important element of the NMM. This process could involve the review of each of the potential elements noted above, including the selection of broad segments of the economy, the setting of baselines, thresholds, or targets, and MRV provision.

89. A standard reporting process is also a potential important component of the NMM, especially under a host-country-driven approach. Standard reporting requirements, such as initial report that describes the design and implementation of a proposed mechanism, as well annual reporting on verified emissions or emission reductions among other matters, can help host countries design effective mechanisms that meet required standards, increase the likelihood of mechanism approval, and enhance transparency for participating entities and observers. Such reporting also provides the basis for systematic and consistent review.

90. Some Parties and observers suggest that such reports, including the baselines and targets they put forward, undergo technical review by sectoral experts at the international level under the UNFCCC. An international body under the UNFCCC authorized to approve mechanisms and the use of mechanism units would then consider the results of these technical reviews and act upon them accordingly.

J. Unit issuance and tracking

91. To encourage fungibility and to minimize the risks of double counting, units can be issued to an emissions registry. Some Parties suggest that the establishment and use of a national registry would be an eligibility requirement for host countries; some Parties suggest that the NMM could use an international unit registry. As discussed above for the FVA in Section III, these registries could be linked to the International Transaction Log. Issuance, transfer, and use could be subject to compliance review by the international body

noted above, which could establish rules to address irregularities, non-compliance, and/or emissions exceeding agreed levels.[10]

K. Financing the administration of the NMM

92. The administration of international bodies, registries, review teams, and/or facilitated participation (provision of national registry and other services to countries requiring assistance) would require financial resources. Similar to the CDM, the NMM could self-finance via a share of proceeds.

L. Length of crediting period

93. Length of crediting periods would need to be set internationally, or guidance could be provided to host countries. Shorter crediting periods could create the greater opportunities for learning, and alternative means to achieve net decrease and/or avoidance of emissions, though they could also dissuade prospective investors.

M. Relationship to other mechanisms

94. As noted in Section II, the relationship between the NMM and other mechanisms (CDM, JI, and mechanisms recognized under the FVA, among others) needs to be clarified. Party submissions appear to leaning towards the primacy of CERs, namely that they would be recognized first, and accounted for in other mechanisms, rather than vice versa.

N. Next steps

95. Several Parties and observers have suggested that pilot activities, or an early start process for learning purposes, could provide an initial phase of learning. A market readiness process for the NMM could follow the Activities Implemented Jointly model and that for REDD launched at the thirteenth meeting of the COP.

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[10] Units would likely be issued ex-post for crediting (after emission reductions are verified). For trading however, international units might be issued ex-ante to the country based on the extent to which its emission target (for a broad segment of the economy) is expected to yield emission reductions. If however, ex post assessment find that the target is exceeded, the international body could require the host country to acquire additional units.